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NOTES ON GEOGRAPHIC DISTRIBUTION

# Diptera, Ceratopogonidae Newman, 1834: New records of Biting and Predaceous midges from Iberá wetlands, Argentina

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**ABSTRACT:** The first Argentina records of four species of biting and predaceous midges (Diptera: Ceratopogonidae) are provided from the Iberá wetlands in Corrientes Province: *Forcipomyia* (*Euprojoannisia*) unica Bystrak and Wirth, *Echinohelea blantoni* Wirth, *Neobezzia fittkaui* Wirth and Ratanaworabhan and *Paryphoconus grandis* Macfie. This is the first record of the predaceous midge genus, *Echinohelea* Macfie, from Argentina.

In their catalogue of the Neotropical species of biting midges (Diptera; Ceratopogonidae), Borkent and Spinelli (2007) recorded 221 species and 32 genera from Argentina. Soon after, 29 additional species of ceratopogonids were described from or recorded from Argentina by Spinelli and Marino (2007); Cazorla and Spinelli (2007, 2010); Marino and Spinelli (2008); Díaz *et al*. (2009, 2010); Felipe-Bauer and Spinelli (2009); Tóthová *et al*. (2009); Spinelli *et al* (2009); Felipe-Bauer *et al*. (2009); and Spinelli *et al*. (2010).

A recent survey of aquatic insects was conducted in one of the largest wetlands in South America, the Esteros del Iberá in the Argentinean province of Corrientes. Four species of biting and predaceous ceratopogonids were collected that represent significant new records for Argentina, including the first record of the predaceous genus *Echinohelea* Macfie from this country.

We provide a brief synonymy for each recorded species, their previously known distribution, collection data and other relevant information. All specimens were collected as part of the Projects PIP 1724 and PIP 0381 of CONICET, Argentina, subsequently slide-mounted in Canada Balsam and deposited in the collection of the División Entomología, Museo de La Plata, Argentina (MLP).

## Subfamily Forcipomyinae

### *Forcipomyia* (*Euprojoannisia*) *unica* Bystrak and Wirth

*Forcipomyia* (*Euprojoannisia*) *unica* Bystrak and Wirth 1978: 44 (male, female; Florida, Bahamas); Borkent and Wirth 1997: 32 (in world catalog); Borkent and Spinelli 2000: 14 (in catalog of species south of USA; distribution); Borkent and Spinelli 2007: 49 (in Neotropical catalog; distribution); Borkent 2011: 32 (online catalog).

**Previous Distribution.** USA (Florida and South Carolina), Bahamas.

**New Record.** Argentina, Corrientes, Estancia San Nicolas (casco), 28°07'41.0" S, 57°26'03.5" W, 64 m, 16-IX-2009, G. Spinelli, at light, 1 male, 2 females (MLP).

Remarks. Biting midges in the subgenus *Euprojoannisia* Brèthes of *Forcipomyia* occur in all major biogeographic regions of the World except for Antarctica. Currently, 25 species are known in the New World, 17 species are known from the Neotropics (Borkent and Spinelli 2007), whereas 15 species have been recorded from the Nearctic region north of Mexico (Borkent and Grogan 2009). Of these, *F. unica* is the only species with a single spermatheca, and our record from northeastern Argentina significantly extends its geographic distribution southward.

## Subfamily Ceratopogoninae

## Tribe Ceratopogoninini

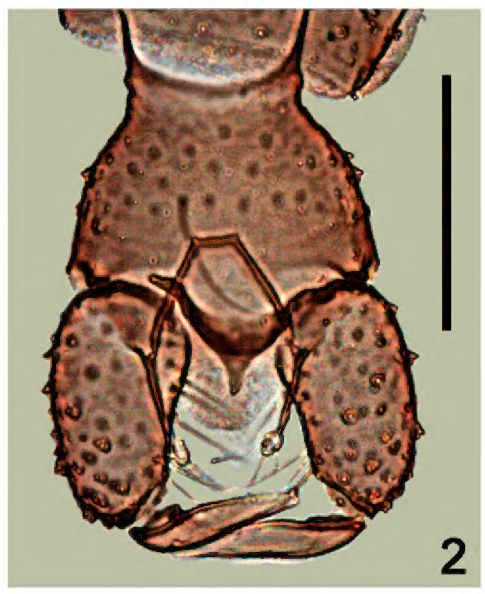
### *Echinohelea blantoni* Wirth

*Echinohelea blantoni* Wirth 1994: 232 (male, female; Panama); Borkent and Wirth 1997: 98 (in world catalog); Borkent and Spinelli, 2000: 48 (in catalog of species south of USA; distribution); Borkent and Spinelli 2007: 81 (in Neotropical catalog; distribution); Borkent 2011: 120 (online catalog).

**Previous Distribution.** Mexico (Yucatán, Oaxaca), Panama to Ecuador.

**New Record.** Argentina, Corrientes, Estancia Rincón del Socorro (costa de estero), 28°37'37.9" S, 57°25'06.4" W, 80 m, 13-III-2010, G. Spinelli, CDC light trap, 1 female (MLP).

**Remarks.** The genus *Echinohelea* Macfie, represented by 26 species, is known to occur in the Australasian, Afrotropical and Neotropical regions, with only one species extending northward to eastern North America (Borkent and Grogan 2009). The 10 Neotropical species primarily inhabit tropical areas with only two species ranging as far south as São Paulo, Brazil, *E. macfiei* Lane and *E. richardsi* Macfie. Wirth (1994) reviewed the American species of the genus and *E. blantoni* keys out in couplet 3 of that work.



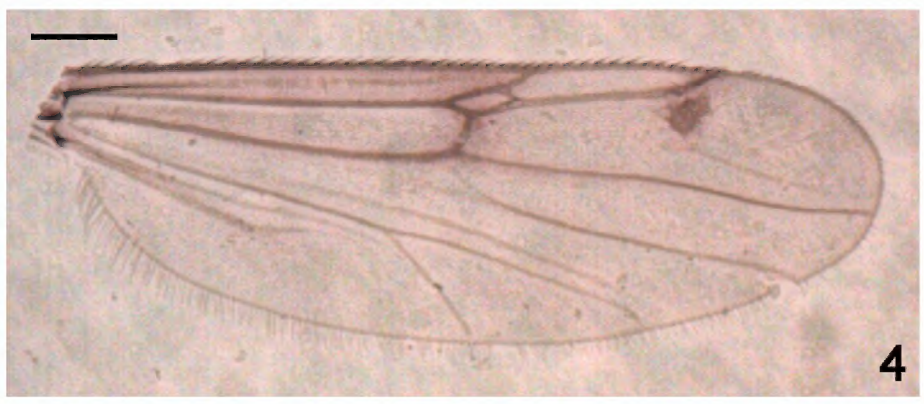



**FIGURE 1-5.** 1-2) *Forcipomyia* (*Euprojoannisia*) *unica*; 3-5) *Echinohelea blantoni*. 1, 5) tip of female abdomen; 2) male genitalia; 3) legs; 4) wing.

## Tribe Sphaeromiini

### *Neobezzia fittkaui* Wirth and Ratanaworabhan

*Neobezzia fittkaui* Wirth and Ratanaworabhan 1972a: 489 (female; Brazil); Borkent and Wirth 1997: 120 (in world catalog); Borkent and Spinelli 2000: 59 (in catalog of species south of USA; distribution); Borkent and Spinelli 2007: 91 (in Neotropical catalog; distribution); Borkent 2011: 148 (online catalog).

**Previous Distribution.** Known only from the type-locality in Brazilean Amazonia.

**New Record.** Argentina, Corrientes, Pay Ubre Stream, 29°01'41.2" S, 58°10'26.6" W, 66 m, 12-III-2010, G. Spinelli, CDC light trap, 3 females (MLP).

**Remarks.** The genus *Neobezzia* is exclusively Neotropical and includes eight species. Most species are predominately Amazonian, two species extend into Central America and two others range into northeastern Argentina. Wirth and Ratanaworabhan (1972) reviewed the genus, *N. fittkaui* keys to couplet 4 of that work.

## Tribe Stenoxenini

### *Paryphoconus grandis* Macfie

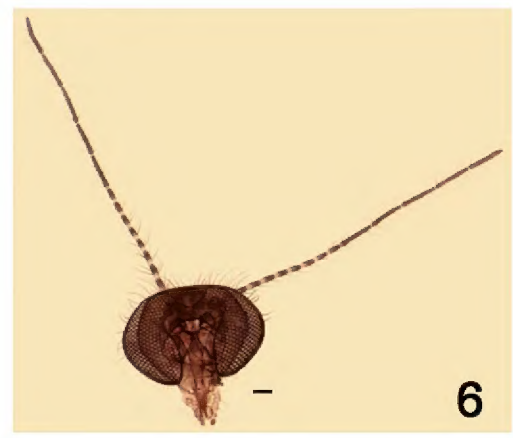
*Paryphoconus grandis* Macfie 1939: 6 (female; Brazil); Spinelli and Wirth 1984: 896 (Belize, ?Brazil, Mexico, Venezuela; notes; wing photo); Borkent and Wirth 1997: 136 (in world catalog); Borkent and Spinelli 2000: 65 (in catalog of species south of USA; distribution); Borkent and Spinelli 2007: 98 (in Neotropical catalog; distribution); Borkent 2011: 169 (online catalog).

*Paryphoconus barretoi*: Wirth and Ratanaworabhan 1972b: 1373 (female; Mexico, Venezuela).

**Previous Distribution.** Mexico (on train quarantined in Arizona), Belize, Venezuela, Brazil (Pará, Santa Catarina).

**New Record.** Argentina, Corrientes, Pay Ubre Stream, 29°01'41.2" S, 58°10'26.6" W, 66 m, 12-III-2010, G. Spinelli, CDC light trap, 1 female (MLP).

**Remarks.** The genus *Paryphoconus* is exclusively Neotropical, includes 40 large to very large species (Borkent and Spinelli, 2007), 38 of which were reviewed by Spinelli and Wirth (1984). *Paryphoconus grandis* keys to couplet 12 of that work.



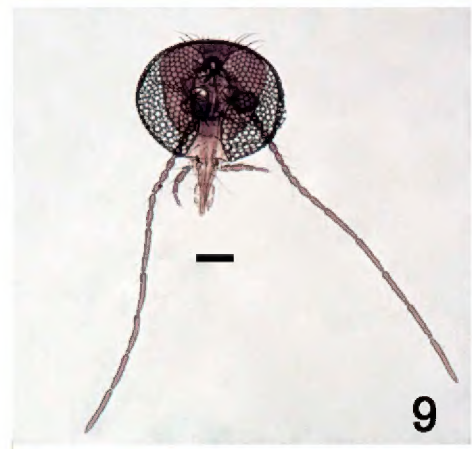


**FIGURE 6-11.** 6-8) *Paryphoconus grandis*; 9-11) *Neobezzia fittkaui*. 6, 9) head; 7, 10) legs; 8, 11) wing.

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